

REMARKS

Reconsideration and allowance of the above application are respectfully requested. Claims 4, 10, 19, and 24 are canceled. Claims 1, 2, 7, 8, 15-17, 22, 36, 37, 44, 46, 55 and 56 are amended. Claims 65-67 are newly added. No new matter is added. Attached is a marked-up version of the changes being made by the current amendment. Upon entry of the above amendment, Claims 1, 2, 7-9, 13-18, 22, 23, 27-37, 39, 42-48, 51-58, and 61-71 are pending and are patentable over cited prior art.

Notably, independent Claims 1, 7, 15, and 22 are amended to recite "a driver circuit comprising thin film transistors adhered to said one of the substrates by said resin adhesive layer" and that "said driver circuit is covered by said pair of opposed substrates." This latter feature is fully supported by FIG. 14 of the present application.

In contrast, the combined teaching of the cited prior art fails to suggest in any way this combination. For example, in Mawatari, the driver circuit 120 cannot be covered by the pair of opposed substrates 101 and 102 as shown in FIGS. 3 and 4 because the driver element 118 becomes obstruction for the substrate 102 (Column 8, lines 43-46). Hence, Claims 1, 7, 15,

and 22 are distinctly different from and hence are patentable over the cited art.

Turning to independent Claims 36, 44, and 55, each claim is amended to recite "a sealing member over said substrate" that "encloses said pixel circuit and said driver circuit." This limitation is fully supported by the original specification, e.g., FIG. 12.

The cited art, however, fails to suggest this limitation in any manner. Mawatari, for example, shows a sealing member 103 that cannot enclose the driver circuit 120 and pixels 107 as shown in FIG. 4. This is in part because the driver element 118 is not separate from the glass substrate 101 and hence becomes obstruction for the sealing member 103. Therefore, Claims 36, 44, and 55 are patentable over cited art.

The remaining claims, including the new claims, are also patentable based on the above arguments as well as their own merits. Hence, all pending claims are patentable over cited prior art.

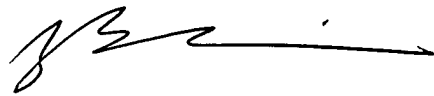
Applicant : Shunpei Y. [REDACTED] azaki, et al. Attorney's Doc. No.: 07977-019002 /
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Respectfully submitted,

Date: _____

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Version with markings to show changes made

In the claims:

Claims 4, 10, 19, and 24 have been cancelled.

Claims 1, 2, 7, 8, 15-17, 22, 36, 37, 44, 46, 55 and 56
have been amended as follows:

1. (Amended) An active matrix type liquid crystal display
device comprising:

a pair of opposed substrates, at least one of said
substrates configured to include a pixel circuit for switching
pixels of said display device;

a liquid crystal material disposed between said pair
of opposed substrates;

a resin adhesive layer formed on said one of the
substrates; and

a driver circuit comprising thin film transistors
[that are formed from a stick substrate separate from said
substrates and are peeled from said stick substrate after the
formation and are] adhered to said one of the substrates by said
resin adhesive layer, wherein said driver circuit is covered by
said pair of opposed substrates.

2. (Amended) A liquid crystal display device according to

claim 1 wherein [said] each of said thin film transistors has a channel region comprising crystalline silicon.

7. (Amended) An active matrix type liquid crystal display device comprising:

a pair of opposed substrates, at least one of said substrates being provided with a pixel circuit for switching pixels of said display device

a liquid crystal material disposed between said pair of opposed substrates;

a resin adhesive layer formed on said one of the substrates;

a driver circuit comprising thin film transistors [formed from a substrate separate from said one of the substrates and] adhered to said one of the substrates by said resin adhesive layer, wherein said driver circuit is covered by said pair of opposed substrates; and

a passivation film covering said driver circuit and having a contact hole to allow an electrical connection between at least one of said thin film transistors and said pixel circuit[, wherein said contact hole has a tapered configuration].

8. (Amended) A liquid crystal display device according to claim 7 wherein [said] each of said thin film transistors has a channel region comprising crystalline silicon.

15. (Amended) An active matrix type liquid crystal display device comprising:

a pair of opposed substrates, at least one of said substrates being provided with a pixel circuit for switching pixels of said display device;

a liquid crystal material disposed between said pair of opposed substrates;

a driver circuit comprising thin film transistors [formed from a substrate separate from said one of the substrates and] adhered to said one of the substrates by a resin layer, wherein said driver circuit is covered by said pair of opposed substrates; and

a passivation film covering said driver circuit, said passivation film having a contact hole to allow an electrical connection between at least one of said thin film transistors and said pixel circuit, wherein [said passivation film comprises at least two layers having different etching rates, and] said contact hole has a tapered configuration.

16. (Amended) A liquid crystal display device according to claim 15 wherein said passivation film comprises a first silicon oxide layer formed over said thin film transistors, and a second silicon oxide layer formed on said first silicon oxide layer, said second silicon oxide layer having a larger etching rate than said first silicon oxide layer.

17. (Amended) A liquid crystal display device according to claim 15 wherein [said] each of said thin film transistors has a channel region comprising crystalline silicon.

22. (Amended) An active matrix type liquid crystal display device comprising:

a pair of opposed substrates, at least one of said substrates being provided with a pixel circuit for switching pixels of said display device;

a liquid crystal material disposed between said pair of opposed substrates;

a driver circuit comprising thin film transistors [formed from a substrate separate from said one of the substrates, and] adhered to said one of the substrates by a resin, wherein said driver circuit is electrically coupled to said pixel circuit through a metal bump, and wherein said driver

circuit is covered by said pair of opposed substrates.

36. (Amended) An active matrix type display device comprising:

a substrate;

a pixel circuit formed over said substrate for switching pixels of said display device,

a driver circuit comprising thin film transistors formed over said substrate and from a stick substrate separate from said substrate, wherein said thin film transistors are coupled in said driver circuit after being peeled from said stick substrate; [and]

a resin adhesive layer for adhering said thin film transistors to said substrate; and

a sealing member over said substrate, wherein said sealing member encloses said pixel circuit and said driver circuit.

37. (Amended) A display device according to claim 36 wherein [said] each of said thin film transistors has a channel region comprising crystalline silicon.

44. (Amended) An active matrix type display device

comprising:

a substrate;

a pixel circuit formed over said substrate for
switching pixels of said display device

a driver circuit comprising thin film transistors
adhered to said substrate by a resin [formed over said
substrate]; [and]

a passivation film covering said driver circuit, said
passivation film having a contact hole to allow an electrical
connection between at least one of said thin film transistors
and said pixel circuit[,]; and

a sealing member over said substrate, wherein said
sealing member encloses said pixel circuit and said driver
circuit.

[wherein said thin film transistors are adhered to
said substrate by a resin, and said contact hole has a tapered
configuration.]

46. (Amended) A display device according to claim 44
wherein [said] each of said thin film transistors has a channel
region comprising crystalline silicon.

55. (Amended) An active matrix type display device

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comprising:

a substrate;

a pixel circuit for switching pixels of said display device[,];

a driver circuit comprising thin film transistors formed over said substrate, a resin[,] adhering said thin film transistors to said substrate, and a metal bump electrically coupling said driver circuit to said pixel circuit; and

a sealing member over said substrate, wherein said sealing member encloses said pixel circuit and said driver circuit.

56. (Amended) A display device according to claim 55 wherein [said] each of said thin film transistors has a channel region comprising crystalline silicon.